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Subject:**Proposal for Development Program, SC-1305B, for Automatic Stereo Correlation System****Reference: Final Report - Experimental Breadboard Program, SC-1305, for Stereo Correlation System, dated 23 July 1965, under subject contract****Gentlemen,**

Under subject contract, [redacted] submitted our final report on an experimental program to construct a Breadboard System for an Automatic Stereo Correlator and evaluation of its performance for possible future integration with [redacted] Stereo Viewers, Models 552 and 552A. The result of this study program has proved, without question, the feasibility of an Automatic Stereo Correlator for the purposes of automatically tracking in stereo in four (4) axes using simple imagery. This evaluation program verified that the techniques proposed were within the state of the art and that operationally this technical approach would enhance the performance of Stereo Viewing Systems which presently employ manual tracking, as well as manual acquisition. As was pointed out in the Final Report, the manual acquisition is still required but that once a stereo image has been acquired, further tracking would be automatic. 25X1

As stated in the contract, and its referenced documents, Contractor Proposal 552-MSC, dated 28 February 1964 and Contractor's letter 552-OD-178, dated 31 March 1964, this Contractor has successfully performed the study program to verify the feasibility of this technique for Automatic Stereo Correlation. As stated in the Contractor's letter mentioned above (made part of the contract) the object of the program was not to produce an operational item, but to determine whether an operational configuration could be developed. The test program performed on the Breadboard equipments verified that the equipments could be developed to an operational configuration; that the equipment was within the state of the art; and that greater performance could be obtained with further effort.

This Contractor is convinced, based on the results of the study program, that the devised techniques will allow further development towards operational hardware. Two (2) avenues are open to us:

a) proceed immediately towards making operational prototype hardware for evaluation in a 552 type equipment;

b) perform developmental effort towards improving the breadboard towards a development model to further confirm the technical opinion expressed above and to use this development model to perform automatic stereo tracking on operational imagery rather than simple high contrast imagery used in verifying the feasibility of the breadboard model.

Considerable analysis has been performed by [redacted] and as a result thereof we are of the opinion that approach (b) above offers a more conservative program towards the ultimate objective of operational equipment and conceivably could be considerably less expensive than immediately proceeding with prototype equipment. Obviously, in a breadboard program, many shortcuts are necessary to obtain the objective in the shortest period of time and at minimum cost. Proceeding at this point with a prototype program could lead to many technical problems which might extend the program and involve additional costs using operational hardware. This would not be the case if the present breadboard model was converted to a development model.

In accordance with the above technical conclusion on the part of [redacted] enclosed herewith is a proposal to use the existing breadboard, constructed under referenced contract, to convert to a developmental model with the objectives as stated in the proposal. It is felt that at the conclusion of this program action could be immediately taken to go directly into operational prototype equipment at minimum cost and minimum time with very little risk.

The cost of this developmental program would be [redacted] and could be accomplished within six (6) months from the date of contract or authority to proceed. Items delivered would be the development model mentioned above and a final engineering report covering results obtained and recommendations for the prototype program. This quotation is valid for sixty days. The program proposed and described would be based on a CPFF or CPIX contract, thereby allowing greater flexibility in the development program towards achieving the most acceptable performance in the shortest period of time.

Transfer of the breadboard equipments under subject contract would be necessary with the understanding it would be used to construct the development model. We have initially discussed this with the technical representatives within your organization and they are presently evaluating and considering the approach presented.

The personnel responsible for building the breadboard equipment and performing the evaluation feasibility program are immediately available for assignment to this program. We would very much like to have your comments and consideration of this as soon as possible. A meeting to discuss this matter in detail is suggested. If there are any questions in the meantime, please do not hesitate to contact the undersigned.

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